

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027444**Date Inspected:** 12-Apr-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Tower 9M Elevation

This QA Inspector made random observations of repair operations on Electroslag Weld (ESW) J face A below the 9M level of the Tower at 3300mm to 3650mm. ABF welder Richard Garcia (ID 5892) employed a small disc grinder to smooth and blend surface indications prior to performing SMAW in the 3G vertical position. The welder was observed operating with 3.2mm E7018-H4R electrodes obtained from a baking oven within the general vicinity. Mr. Garcia utilized a chipping hammer to remove the slag from the weld between passes and upon completion of the repair operations, employed a small disc grinder to remove excessive weld reinforcement to bring the repaired area to a flush surface condition. QC Inspector Jesse Cayabyab performed a Magnetic Particle (MT) Inspection of the area and found no rejectable indications at the time of testing. This QA Inspector performed an MT Inspection of face A of ESW J at 3300mm to 3650mm. This QA Inspector performed the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

Tower 13M Elevation

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This QA Inspector reported to the 13M elevation of the Tower to monitor quality and observe Submerged Arc Welding (SAW) of the diaphragm plate weld #125. This QA Inspector observed heat induction blankets to provide pre-heat for the single bevel joint and verified the temperature was the required minimum of 225° F. It was also noted that the remote oven for the ESAB EN 760 Flux was in the on position with the dial set at 250° F as ABF welding personnel employed a flux recycling vacuum hose to empty the feeder hopper of the SAW unit. This QA Inspector observed the removal of the electrode spool which was discarded and replaced with a new F7A2-EM12KH8 electrode spool. QC Inspector Fred Von Hoff measured the parameters for amperage, volts, travel speed and the heat input as ABF welder James Zhen (ID 6001) adjusted the controls on the Lincoln track mounted wire feeder. Upon approval for conformity with WPS-D1.5-4062-1, Mr. Zhen commenced welding operations on weld #125 in the 1G flat position. On a subsequent observation, this QA Inspector observed ABF welding personnel recycle the flux utilizing a vacuum hose and cleaning the edge of the work with a chipping hammer between passes. Mr. Zhen was observed adjusting the path of the feeder prior to each consecutive pass during the ongoing process and inspected each completed pass for indications and workmanship. QC Inspector Fred Von Hoff was present to monitor the welding and the parameters so they remain within the requirements of the WPS. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract documents.

Summary of Conversations:

This QA Inspector conducted a turnover concerning the status and operations at the 13m elevation of the Tower with QAI Lead Daniel Reyes.



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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
